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To cite this article: I Zinovyeva *et al* 2019 *IOP Conf. Ser.: Earth Environ. Sci.* **392** 012020

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# Practices of forest exploitation in priority investment projects: benefits and implications

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**Abstract.** The paper discusses the topical issues of investment activities enhancement in the forest sector of the Russian economy by implementing the mechanism of priority investment projects in the field of forest exploitation – economic model of public-private partnership proposed by the forest owner (the State) for the private sector. The aim of the considered investment projects is the development of a timber-processing infrastructure, which is reliably provided with wood raw materials. It becomes possible to ensure certain preferences for businessmen that encourage them to invest money into the forest sector. Thus, the other objective is to develop recommendations for attracting investments into the forest sector of the Russian economy in the framework of priority investment projects. The paper analyzes a ten-year experience in the practice of applying priority investment projects in forest exploitation using an integrated approach to studying project management issues and method of comparison. The research identifies positive moments and a number of organizational and methodological shortcomings related to the development and implementation of investment projects in the forest sector of the Russian Federation. A number of areas contributing to the development of investment activities in forest exploitation is proposed.

## 1. Introduction

Russia takes the first place in the forest area and the second place, after Brazil, in timber reserves in the world. The total area of the forest fund of Russia is 1.18 billion hectares. The total timber stock in forests is 83.4 billion m<sup>3</sup>. Ripe and overmature stands of the main forest-forming species in the Russian production forests make 29 billion m<sup>3</sup>. The allowable annual volume of wood harvesting in Russia is 704.8 million m<sup>3</sup> and 212.4 million m<sup>3</sup> are actually harvested (30.1 % of the calculated cutting area). It is obvious that the existing reserves of forest resources can provide not only the current and future country's domestic needs for wood and products coming from its processing, but significantly expand the export of forest products.

Possessing a quarter of the world timber reserves, the contribution of the forest sector to the total volume of Russian industrial production is four times less than that of the oil industry. The labor



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productivity and profitability are two and a half times lower. The level of using the economic strength in this sector ranges from 7 to 10 % (according to various estimates). The forest sector accounts only for 2.6 % in gross domestic product (GDP), and 4.3 % in foreign exchange earnings.

Attracting investments to the sector is an important factor in improving the efficiency of forest resource exploitation. In Europe, the main instruments to support potential forest investors are recorded in the well-designed forest state policies [1]. For instance, in Slovakia, the mechanism of tax incentives as an economic tool to attract investment in the forest sector has been successfully implemented for a long time [2]. Attempts are being made to create ever new economic incentives for effective forest management and socially responsible forest management. They are based on a constant dialogue of stakeholders (the state and investors).

To this end, the Russian Federation uses a mechanism for the implementation of priority investment projects in the field of forest exploitation. It is a kind of concession used in some foreign countries (Canada, China, *etc*). The concession (in contrast to the mechanism of priority investment projects in the field of forest exploitation) is based on the use of forests, when private investors are partners to the government and they are entitled to do business through tenders. The practice of concession application is shown in the publications of the researchers [3-6].

However, even ten years after the mechanism of priority investment projects in the field of forest development has appeared in the Russian Federation, the positive aspects associated with its implementation, as well as the main drawbacks of the projects and recommendations for their elimination have not been systematized yet. More effective investment attraction in the forest sector needs a systematic approach to this issue.

Considering the aforementioned, the general aim of this work was to develop recommendations for attracting investments into the forest sector of the Russian economy in the framework of priority investment projects. Within this aim, the tasks were as follows: to analyze the ten-year experience in the practice of applying priority investment projects in forest exploitation, and to mark positive moments and a number of organizational and methodological shortcomings related to the development and implementation of investment projects in the forest sector of the Russian Federation. The paper also proposes a number of areas that contribute to the development of investment activities in the field of forest management.

## **2. Starting the practices of priority investment project in the field of forest exploitation**

The Institute of Priority Investment Projects in the Field of Forest Development in the Russian Federation was introduced in 2007 after the adoption of the Forest Code of the Russian Federation in 2006 [7]. The RF Government Decree of June 30, 2007 No. 419 “On Priority Investment Projects in the Field of Forest Exploitation” was adopted in order to attract investments into the forest sector [8].

The investment projects in the field of forest exploitation include projects related to the creation and (or) modernization of forest infrastructure facilities (forest roads, forest storage facilities, *etc*) and (or) timber processing infrastructure (facilities for processing harvested wood and other resources, bioenergy facilities, *etc*).

The Implementation of investment projects in the field of forest exploitation aims at solving the following tasks:

- 1) Attracting private investment into the forest sector;
- 2) Creation of new high-tech industrial forestry complexes, ensuring the production of high value-added products and integrated use of wood raw material;
- 3) Production increase of high value-added products and import substitution of wood and paper products;
- 4) Growth in forest use and development of forest resources with difficult access;
- 5) Creation and development of forest infrastructure (forest roads); increase of additional jobs and solving social problems of individual towns and settlements.

The Ministry of Industry and Trade of the Russian Federation maintains the list of priority investment projects in the field of forest development. Based on the decisions of state authorities of

the constituent entities of the Russian Federation and the approval of Federal Forestry Agency, the Ministry, includes or makes changes to the specified list.

Because of the implementation of priority investment projects in the field of forest development, as of January 01, 2017, 51 production facilities with a total investment of 2.33 billion US dollars (hereinafter, the US dollar : Russian Ruble exchange rate is 1 :64.2, as of October 2019) were put into operation. It enabled to involve forest areas with an annual allowable amount of wood harvesting of more than 28.7 million m<sup>3</sup> in economic circulation, to create more than 25.7 thousand new jobs and ensure the increase in production capacity for harvesting and processing of wood [9].

Since 2010, the number of applications for inclusion in this list has increased significantly. If, for example, only 15 applications for inclusion in the list of investment projects were submitted in 2010, there were already 66 of them in 2017. Twenty-six projects were included in the list of priority investment projects in the field of forest development of the Ministry of Industry and Trade of the Russian Federation after consideration of applications in 2017. Eight projects were excluded from the list due to impairment of obligation by investors in 2017.

At the end of 2017, statistics on investment projects in the field of forest development looked as follows: 139 investment projects were on the list, 41 of which were completed, 52 projects were with a high degree of readiness, 46 projects were in progress.

### **3. Changes in the practice of implementing priority investment projects in the field of forest exploitation in 2018**

From March 08, 2018 a new Government Decree on priority investment projects in the field of forest exploitation No. 190 dated of February 23, came into force [10]. It established fundamentally new requirements for the implementation of priority investment projects in the field of forest development. This decree approved a new Regulation on the preparation and approval of the list of priority investment projects in the field of forest exploitation.

Amendments were also made to the Decree of the Government of the Russian Federation of May 22, 2007 No. 310 [11], concerning the application of decreasing coefficient to the rates of payment for the use of forests when implementing priority investment projects.

The new changes have touched upon the procedure for including priority investment projects in the list, the procedure for their implementation and monitoring the implementation of projects. The volume of investments should now be not less than 7.78 billion US dollars for modernization of timber processing enterprises, and not less than 11.68 billion US dollars for creation of new enterprises (it was previously 4.67 billion US dollars in both cases).

Decisions of the Ministry of Industry and Trade of Russia on the inclusion of projects in the list (and the list itself) should be posted on the website of the Ministry (these documents were previously closed and not published).

The investor must give documentary evidence that he/she has own or borrowed funds in the amount of not less than 50 % of the required for the entire project, or 25 % required for the first two years if the project implementation period exceeds three years.

Information on the application review process for the inclusion of a project in the list should be publicly available on the Internet for a certain period.

From now, only one or two changes in the investment project (depending on the volume of investments) are allowed, and the largest ones (0.31 billion US dollars) can be changed only by the decision of the federal government.

Decreasing coefficient to the rates of wood payments can be now applied only for a certain period, depending on the amount of investment, and only “from the moment of putting wood-processing facilities into operation confirmed by the commissioning certificate”. Up to this point, and after the expiration of decreasing coefficient, the rent should be charged in full using the average rent prevalence ratio over the minimum charge rate established in a constituent entity of the Russian Federation.

Thus, the new decree tightened the rules for the investment projects and strengthened the control functions of parties concerned. These changes were introduced in response to a large number of abuses both by the business and by the supervisory authorities.

As of March 01, 2018, the list of priority investment projects has included 141 investment projects with 7.97 billion US dollars of total announced investments (6.25 billion US dollars were actually invested), the size of the calculated cutting area was 81.8 million m<sup>3</sup>.

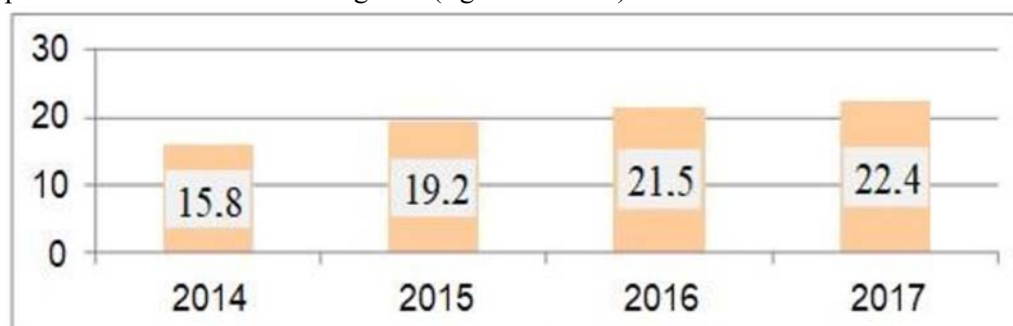
#### 4. Results and discussion

The present paper considers the effect of the development and implementation of priority projects on forest exploitation.

The implementation of the mechanism of priority investment projects in the field of forest exploitation has significantly changed the forest sector of the country: a large number of modern woodworking industries were built, new jobs were created, and the revenue component of the budget (in the form of taxes) increased.

Over the past 10 years, the forest sector has become more interesting for investors. For example, if, according to the data of the Ministry of Industry and Trade of the Russian Federation, investments in the forest industry in our country amounted to 1.26 billion US dollars in 2008, their value increased 1.4 times and came to 1.82 billion US dollars in December 2017. Undoubtedly, the main mechanism increasing the volume of investments in the forest sector was the implementation of priority investment projects for forest exploitation.

The increase in investment had a positive impact on the volume of timber production and the level of development of the calculated cutting area (figures 1 and 2).



**Figure 1.** Dynamics of production volumes of forestry products in the Russian Federation in 2014 - 2017, billion US dollars.



**Figure 2.** Dynamics of changes in the volume of timber harvesting in 2008 - 2017 in the Russian Federation, million m<sup>3</sup>.

**Table 1.** Production volumes of the most important forest products in the Russian Federation in 2008 and 2017

Products	Unit	2008	2017	2017/ 2008, %
Lumber	million m <sup>3</sup>	21.8	25.9	118.8
Plywood	thousand m <sup>3</sup>	2592.0	3729.3	143.8
Particle board	thousand relative m <sup>2</sup>	5800.0	8472.8	146.0
Wood fiber board	million relative m <sup>3</sup>	480.3	590.5	122.9
Wooden houses of factory production	thousand m <sup>2</sup>	284.1	233.0	82.0
Wood pellets	thousand t	Information is not available	1343.4	
Cellulose	thousand t	5913.0	8586.9	145.2
Paper and cardboard	thousand t	7700.0	8568.8	111.3

As can be seen from table 1, in general, almost all the segments of the forest sector show a stable growth (with the exception of wooden housing) in recent years. Since 2008, the production of particleboard has increased by 46 %, cellulose - by 45.2%, plywood - by 43.8%, fiberboard - by 22.9 %, and lumber - by 18, 8%. During this period, new products appeared (for instance, fuel pellets). If we did not have such production in 2008, then 1.3 million m<sup>3</sup> was already produced in 2017.

Since 2015, there has been an increase in the export of wood and paper products. This export brought 9.01 billion US dollars in 2015, 10.21 billion US dollars in 2016, 10.62 billion US dollars in 2017, and 12.41 billion US dollars in 2018.

According to the official data, the processing volume of round raw materials in the Russian Federation reached 70 % in 2017, and the index of the physical volume of investments in fixed assets – 107 %, which indicates a significant development of the sector.

Nevertheless, with undoubted positive changes in the all-Russian forest sector, associated with the implementation of projects in the field of forest exploitation, our country provides only 3% of world timber production. Only 20 % of harvested wood is subjected to “deep” processing, which turns cheap raw materials into the most valuable categories of products. This share reaches 80 % in the countries

with developed forest industry. Round timber (more than 36 %) and products of its primary processing are the main parts of Russia's timber export.

The main shortcomings that impede successful development of forest sector, related to the mechanism for implementing priority investment projects are listed below

1. Absence of assessment criteria based on the economic efficiency for the inclusion of an investment project into the priority list.

The only quantitative criterion for this was the total capital investment of at least 4.67 million US dollars. The quality criterion was the direction of capital investments to forest and forestry infrastructure facilities [12,13]. Such an approach in the selection of applications for the implementation of forest investment projects does not contribute to solving such important problems in the forest sector development as ensuring the integrated use of harvested wood, developing import-substituting industries, and organizing the manufacture of high added value products [9].

Increased investments (in relation with the adoption of Decree No. 190) do not change the essence of this methodological disadvantage.

2. Obvious gaps in the regulation of forest infrastructure. These are gaps arising from the construction and operation of forest roads in the subjects of these relations (tenants, forestry services, local executive authorities and others). The procedure for registering forest roads and the issues of admitting vehicles not involved in the forest infrastructure servicing remains uncertain. A significant obstacle to the creation of a developed forest transport infrastructure is the lack of mechanisms for registration of property rights to forest roads and compensation for investor costs.

At the same time, it should be noted that a significant part of forest is transferred to the projects for reconstruction and expansion of production. It means that forest business only selects the most accessible and high-quality forest resources and is not going to invest in forest infrastructure.

3. Outdated forest surveying. The objective information on the forest state, the changes occurring on forest area and the standards for the use of forest resources can be obtained only during forest surveying. In the Russian Federation, forest surveying materials are mostly outdated. The state documents for forest surveying do not allow planning forestry and logging activities at strategic, tactical and operational levels, attracting new investors to the forest sector.

4. Corruption risk. The process of deciding on the provision of forests for rent under the mechanism of priority investment projects remains to be difficult. At first, the Department of Forestry or the other control bodies consider the project at the local level, and then, the decision is made at the federal level (Federal Forestry Agency and Ministry of Industry and Trade of the Russian Federation). It is based on officials' views on the direction of development of the forest sector. This approach has both a corruption component and elements of pressure from large groups of influence.

5. Squeeze of small and medium enterprises from the forest business. The negative consequence of the lease of large forest areas (when tenants do not fulfill their obligations to attract investments) is the lack of "free" resources for the development of small and medium-sized businesses in the area of transport accessibility. It leads to the emergence of speculative activities in forests exploitation through subleasing forest areas allocated for the implementation of investment projects.

The lack of "free" resources for the development of small and medium-sized businesses leads to the "squeeze" of its large tenants developing within holdings. It leads to monopolization of the forest lease among large processors. The monopolization of leases in the hands of large forest-processing groups can be viewed as preparations for gradual introduction of forest private ownership.

Awareness of the above shortcomings and the development of mechanisms to eliminate them help to attract investments into the forest sector of the Russian economy more actively.

One step in this direction is the creation of the Council of the Federal Forestry Agency (headed by the Chief of this Agency) for maintaining investment activities in the field of forest development [14].



## 5. Conclusion and recommendations

Therefore, considering the aforementioned, on the one hand, priority investment projects are real working, practical tools creating an incentive for investing into the development of timber processing enterprises. These projects enable to obtain a forest plot on preferential terms.

At the same time, imperfections of the Russian forest legislation, inconsistency of business, forestry and government interests, as well as other systemic problems reduce the effectiveness of the instrument of state support for forest business. This instrument is a mechanism of priority investment projects in the field of forest development. Therefore, the forest sector cannot take leading positions in the nation's economy.

Unclear mechanism of priority investment projects requires close attention from the federal and regional authorities. The Council of Federal Forestry Agency promotes more favorable investment climate and ensures stable conditions for forestry investments. Developing proposals for amending the current legislation in terms of investment activities is planned within this Council. Reviewing concepts of state programs and long-term target programs of the Russian Federation, setting interaction between the federal government bodies, government bodies of constituent entities of the Russian Federation, business community and scientific institutions in order to implement investment projects in the field of forest exploitation is also targeted. Investors can turn to the Council with proposals to increase investment attractiveness, assist in creating the necessary conditions for a rational allocation of wood processing facilities based on the availability of forest resources, and improve the investment climate in the implementation of investment projects in the field of forest exploitation.

The authors of the present work find it appropriate to introduce the concession mechanism into the future. It is based on competitive selection of investors according to the criterion of maximization of income from timber in order to attract investment in the forest sector. For this, it would be useful to create a separate group of experts - forest economists, which (with appropriate support from the above-mentioned Council) could adapt successful foreign practices of concessionary forest management to Russian realities at scientific and methodological levels. This could be a relevant direction in the development strategy of the Russian forest sector. The existing mechanism for the implementation of priority projects in the field of forest exploitation in the present-day view can be considered as an intermediate stage in the practice of attracting investment in the forest sector of the Russian economy.

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